

-2-

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please add new claims 68-78 and amend the claims as follows.

42. (Amended Herewith) A method for treating cancer, comprising:
administering to a human subject an effective amount for treating cancer of a ~~stabilized~~ CpG immunostimulatory oligonucleotide having at least one unmethylated CpG dinucleotide, wherein at least one nucleotide of the stabilized CpG immunostimulatory oligonucleotide has a phosphate backbone modification and wherein the oligonucleotide is 8 to 100 nucleotides in length.

43. (Previously Presented) The method of claim 42, further comprising administering a chemotherapeutic agent.

44. (Previously Presented) The method of claim 42, further comprising administering a cancer immunotherapeutic agent.

45. (Previously Presented) The method of claim 42, wherein the cancer is brain cancer.

46. (Previously Presented) The method of claim 42, wherein the cancer is lung cancer.

47. (Previously Presented) The method of claim 42, wherein the cancer is ovarian cancer.

48. (Previously Presented) The method of claim 42, wherein the cancer is breast cancer.

49. (Previously Presented) The method of claim 42, wherein the cancer is prostate cancer.

-3-

50. (Previously Presented) The method of claim 42, wherein the cancer is colon cancer.

51. (Previously Presented) The method of claim 42, wherein the cancer is leukemia.

52. (Previously Presented) The method of claim 42, wherein the cancer is carcinoma.

53. (Previously Presented) The method of claim 42, wherein the cancer is sarcoma.

54-55. (Canceled Herewith)

56. (Amended Herewith) The method of claim ~~42~~ 54, wherein the phosphate backbone modification is a phosphorothioate ~~or phosphorodithioate~~ modification.

57. (Amended Herewith) The method of claim 56, wherein the ~~stabilized~~ CpG immunostimulatory oligonucleotide includes the phosphate backbone modification on the 5' inter-nucleotide linkages.

58. (Amended Herewith) The method of claim 56, wherein the ~~stabilized~~ CpG immunostimulatory oligonucleotide includes the phosphate backbone modification on the 3' inter-nucleotide linkages.

59. (Amended Herewith) The method of claim 42, wherein the ~~stabilized~~ CpG immunostimulatory oligonucleotide comprises:



wherein X_1X_2 and X_3X_4 are nucleotides.

60. (Amended Herewith) The method of claim 59, ~~wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA, ApA, ApT, ApG, CpT, CpA, CpG, TpA,~~

-4-

~~TpT, and TpG; and~~ X_3X_4 are nucleotides selected from the group consisting of: TpT, ~~CpT, ApT,~~
~~TpG, ApG, CpG, and~~ TpC, ApC, CpC, TpA, ApA, and CpA.

61. (Previously Presented) The method of claim 59, wherein X_1X_2 are GpA and X_3X_4 are TpT.

62. (Previously Presented) The method of claim 59, wherein X_1X_2 are both purines and X_3X_4 are both pyrimidines.

63. (Previously Presented) The method of claim 59, wherein X_1X_2 are GpA and X_3X_4 are both pyrimidines.

64. (Previously Presented) The method of claim 59, wherein the oligonucleotide is 8 to 40 nucleotides in length.

65. (Previously Presented) The method of claim 59, wherein 5' $X_1 X_2$ CGX₃ X₄ 3' is not palindromic.

66. (Previously Presented) The method of claim 42, wherein the CpG immunostimulatory oligonucleotide includes at least two CpG motifs.

67. (Previously Presented) The method of claim 66, wherein at least one of the at least two CpG motifs is not palindromic.

68. (New) The method of claim 42, wherein the oligonucleotide is administered prior to a chemotherapy.

-5-

69. (New) The method of claim 42, wherein the oligonucleotide is administered subcutaneously.

70. (New) The method of claim 42, wherein the oligonucleotide is administered with an antibody for antibody dependent cellular cytotoxicity.

71. (New) A method for treating non small cell lung carcinoma (NSCLC) in a human subject, comprising

administering to a human subject having NSCLC an effective amount to treat NSCLC of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide, wherein the immunostimulatory oligonucleotide includes a phosphate backbone modification and, wherein the oligonucleotide is 8 to 100 nucleotides in length.

72. (New) The method of claim 71, further comprising administering a chemotherapeutic agent.

73. (New) The method of claim 71, further comprising administering an immunotherapeutic agent.

74. (New) The method of claim 71, wherein the phosphate backbone modification is a phosphorothioate modification.

75. (New) The method of claim 71, wherein the oligonucleotide is 8 to 40 nucleotides in length.

76. (New) The method of claim 71, wherein the CpG immunostimulatory oligonucleotide includes at least two CpG motifs.

-6-

77. (New) The method of claim 76, wherein at least one of the at least two CpG motifs is not palindromic.

78. (New) The method of claim 71, wherein the oligonucleotide is administered subcutaneously.